

10/587,872

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NEWS	3	AUG 18	COMPENDEX indexing changed for the Corporate Source (CS) field
NEWS	4	AUG 24	ENCOMPLIT/ENCOMPLIT2 reloaded and enhanced
NEWS	5	AUG 24	CA/CAPLUS enhanced with legal status information for U.S. patents
NEWS	6	SEP 09	50 Millionth Unique Chemical Substance Recorded in CAS REGISTRY
NEWS	7	SEP 11	WPIDS, WPINDEX, and WPIX now include Japanese FTERM thesaurus
NEWS	8	OCT 21	Derwent World Patents Index Coverage of Indian and Taiwanese Content Expanded
NEWS	9	OCT 21	Derwent World Patents Index enhanced with human translated claims for Chinese Applications and Utility Models
NEWS	10	NOV 23	Addition of SCAN format to selected STN databases
NEWS	11	NOV 23	Annual Reload of IFI Databases
NEWS	12	DEC 01	FRFULL Content and Search Enhancements
NEWS	13	DEC 01	DGENE, USGENE, and PCTGEN: new percent identity feature for sorting BLAST answer sets
NEWS	14	DEC 02	Derwent World Patent Index: Japanese FI-TERM thesaurus added
NEWS	15	DEC 02	PCTGEN enhanced with patent family and legal status display data from INPADOCDB
NEWS	16	DEC 02	USGENE: Enhanced coverage of bibliographic and sequence information
NEWS	17	DEC 21	New Indicator Identifies Multiple Basic Patent Records Containing Equivalent Chemical Indexing in CA/CAPLUS
NEWS	18	JAN 12	Match STN Content and Features to Your Information Needs, Quickly and Conveniently
NEWS	19	JAN 25	Annual Reload of MEDLINE database
NEWS	20	FEB 16	STN Express Maintenance Release, Version 8.4.2, Is Now Available for Download
NEWS	21	FEB 16	Derwent World Patents Index (DWPI) Revises Indexing of Author Abstracts
NEWS	22	FEB 16	New FASTA Display Formats Added to USGENE and PCTGEN
NEWS	23	FEB 16	INPADOCDB and INPAFAMDB Enriched with New Content and Features
NEWS	24	FEB 16	INSPEC Adding Its Own IPC codes and Author's E-mail Addresses

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NEWS EXPRESS FEBRUARY 15 10 CURRENT WINDOWS VERSION IS V8.4.2,  
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FILE 'CAPLUS' ENTERED AT 16:50:14 ON 03 MAR 2010

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FILE COVERS 1907 - 3 Mar 2010 VOL 152 ISS 10

FILE LAST UPDATED: 2 Mar 2010 (20100302/ED)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2009

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2009

CAPLUS now includes complete International Patent Classification (IPC)  
reclassification data for the third quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=> s organoborane and organoaluminum

751 ORGANOBORANE

6890 ORGANOALUMINUM

L1 13 ORGANOBORANE AND ORGANOALUMINUM

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YOU HAVE REQUESTED DATA FROM 13 ANSWERS - CONTINUE? Y/(N):y

L1 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2004:430645 CAPLUS

DOCUMENT NUMBER: 141:8475

TITLE: Method for preparing high 1,4-cis polybutadiene having controlled cold flow

INVENTOR(S): Jang, Young Chan; Kim, Pil Sung; Han, Shin; Kwag, Gwang Hoon; Lee, Seung Hwon

PATENT ASSIGNEE(S): Korea Kumho Petrochemical Co., Ltd., S. Korea

SOURCE: U.S. Pat. Appl. Publ., 8 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040102589	A1	20040527	US 2003-653542	20030902
US 6908975	B2	20050621		
KR 2004044763	A	20040531	KR 2002-72934	20021122
PRIORITY APPLN. INFO.:			KR 2002-72934	A 20021122

OTHER SOURCE(S): MARPAT 141:8475

AB The present invention relates to a method for preparing a high 1,4-cis polybutadiene having a controlled cold flow and, more particularly, to a novel method for preparing a high 1,4-cis polybutadiene having a controlled cold flow that involves initiating polymerization of a 1,3-butadiene in the presence of a non-polar solvent using, as a polymerization catalyst, a complex prepared by mixing a neodymium compound with or without a conjugated diene compound, a halogenated organoaluminum compound or a halogenated organic compound, and an organoaluminum compound irresp. of the addition order of the catalyst; and adding an organoborane compound as a cold flow controller of 1,4-cis polybutadiene after a predetd. time of the polymerization. Accordingly, a high 1,4-cis polybutadiene having an efficiently controlled cold flow can be prepared without causing a significant increase in the Mooney viscosity (mol. weight), an odor (bad smell), and a reduction in 1,4-cis content and polymerization yield.

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:511382 CAPLUS

DOCUMENT NUMBER: 139:85799

TITLE: Organoborane lewis acidic polymerization catalyst activators for olefin polymerization

INVENTOR(S): Xu, Wei

PATENT ASSIGNEE(S): Nova Chemicals (International) S.A., Switz.

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003054033      A1      20030703      WO 2002-CA1836      20021128
W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
    CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
    GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
    LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
    PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT,
    TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
    KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
    FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
    CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
CA 2364756          A1      20030610      CA 2001-2364756      20011210
US 20030144435      A1      20030731      US 2002-301377      20021121
US 6794329          B2      20040921
AU 2002366696      A1      20030709      AU 2002-366696      20021128
EP 1451229          A1      20040901      EP 2002-805237      20021128
R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
    IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
PRIORITY APPLN. INFO.:      CA 2001-2364756      A 20011210
                                WO 2002-CA1836      W 20021128

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S):      MARPAT 139:85799
AB  A two component catalyst activator comprises (A) lewis acidic organoboron
    (or an organoaluminum) component; and (B) a component defined by
    the formula ASO3R wherein A = pseudo cationic group and R = a hydrocarbyl
    or substituted hydrocarbyl. The catalyst activator is used in combination
    with a transition metal catalyst for the polymerization of olefins. The
    catalyst
    activator provides improved catalyst activities. It is especially useful in
    solution polymns. because of desirable solubility characteristics in
    comparison to
    the borate salts used in prior activators.
REFERENCE COUNT:      3      THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1  ANSWER 3 OF 13  CAPLUS  COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER:      2003:67244  CAPLUS
DOCUMENT NUMBER:      139:6420
TITLE:      Novel heterobimetallic catalysts for asymmetric
Michael reactions
AUTHOR(S):      Velmathi, S.; Swarnalakshmi, S.; Narasimhan, S.
CORPORATE SOURCE:      T.R. Govindachari Centre for Natural Products, SPIC
Science Foundation, Chennai, 600 032, India
SOURCE:      Tetrahedron: Asymmetry (2003), 14(1), 113-117
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER:      Elsevier Science Ltd.
DOCUMENT TYPE:      Journal
LANGUAGE:      English
OTHER SOURCE(S):      CASREACT 139:6420
AB  The newly developed chiral catalysts based on organoborane and
    organoaluminum complexes show opposite enantioselectivity in
    Michael addition reactions of cyclic enones and malonates resulting in the
    production of both enantiomers of products in good chemical yield and
    enantiomeric excess. 27Al NMR studies showed the formation of different
    types of complexes for these catalysts and the enantioselectivity was
    found to be dependent on the nature of the aluminum complex formed. Scope
    of the reaction was extended to other Michael donors such as nitro alkanes
    and thiols.
OS.CITING REF COUNT:      20      THERE ARE 20 CAPLUS RECORDS THAT CITE THIS

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RECORD (20 CITINGS)  
 REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2002:963731 CAPLUS  
 DOCUMENT NUMBER: 138:25082  
 TITLE: Polymerization of  $\alpha$ -olefins with non-metallocene  
 catalysts based on Group VII transition metal  
 complexes of oligo(pyrazolyl)borate ligands  
 INVENTOR(S): Fujisawa, Kiyoshi; Nabika, Masaaki  
 PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan  
 SOURCE: Eur. Pat. Appl., 32 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1266911	A1	20021218	EP 2002-12927	20020611
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003064123	A	20030305	JP 2002-80617	20020322
JP 3932940	B2	20070620		
JP 2003064122	A	20030305	JP 2002-80618	20020322
JP 3932941	B2	20070620		
SG 98056	A1	20030820	SG 2002-3374	20020607
CN 1390864	A	20030115	CN 2002-122761	20020611
CN 1302026	C	20070228		
US 20030032743	A1	20030213	US 2002-166379	20020611
US 6881802	B2	20050419		

PRIORITY APPLN. INFO.: JP 2001-178252 A 20010613  
 JP 2001-178253 A 20010613

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 138:25082

AB A polymerization catalyst was obtained by contacting a Group VII transition metal

complex, specifically manganese complex, with an oligo(pyrazolyl)borate ligand, such as hydrotris(3,5-diisopropyl-1-pyrazolyl)borate, with a cocatalyst comprising organoaluminum, aluminoxane or organoborane compound. Thus, ethylene and 1-hexene was copolymerized in the presence of 1.0  $\mu$ mol chloro[hydrotris(3-tert-butyl-5-isopropyl-1-pyrazolyl)borato]manganese (preparation given, x-ray structurally characterized), 0.25 mmol triisobutylaluminum and 6.0  $\mu$ mol triphenylcarbeium tetrakis(pentafluorophenyl)borate at 60° for 60 min to yield ethylene/1-hexene copolymer with 23.7 short chain branches per 1000 carbons, m.p. 109.5°, and activity  $2.0 \times 10^5$  mol[Mn]/h.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2002:114430 CAPLUS  
 DOCUMENT NUMBER: 137:325205  
 TITLE: Novel chiral switching ligands for enantioselective  
 asymmetric reductions of prochiral ketones  
 AUTHOR(S): Narasimhan, S.; Swarnalakshmi, S.; Balakumar, R.;  
 Velmathi, S.

CORPORATE SOURCE: Centre for Natural Products, SPIC Science Foundation,  
Guindy, 600 032, India

SOURCE: Molecules [online computer file] (2001), 6(12),  
988-995  
CODEN: MOLEFW; ISSN: 1420-3049  
URL: <http://www.mdpi.org/molecules/papers/61200988.pdf>

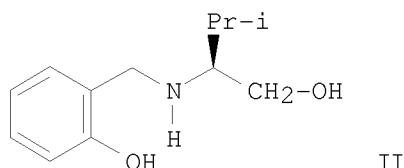
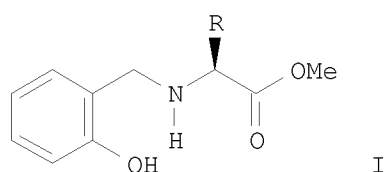
PUBLISHER: Molecular Diversity Preservation International

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:325205

GI



AB The newly developed chiral ligands I and II show opposite enantioselectivity in the asym. reduction of prochiral ketones resulting in the production of either enantiomer depending on the metal complex with high enantiomeric excess.

OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1997:60387 CAPLUS

DOCUMENT NUMBER: 126:89426

ORIGINAL REFERENCE NO.: 126:17271a,17274a

TITLE: Group III: Boron, aluminum, gallium, indium, and thallium

AUTHOR(S): Almond, M. J.

CORPORATE SOURCE: University Reading, UK

SOURCE: Organometallic Chemistry (1996), 25, 50-84

CODEN: OGMCAQ; ISSN: 0301-0074

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review containing 116 refs.

REFERENCE COUNT: 116 THERE ARE 116 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1989:191879 CAPLUS  
DOCUMENT NUMBER: 110:191879  
ORIGINAL REFERENCE NO.: 110:31840h,31841a  
TITLE: A convenient route to  $\alpha$ -alkoxy ester from olefin  
via organoborane-catalyzed hydroalumination  
AUTHOR(S): Maruoka, Keiji; Shinoda, Kiyotaka; Yamamoto, Hisashi  
CORPORATE SOURCE: Dep. Appl. Chem., Nagoya Univ., Nagoya, 464, Japan  
SOURCE: Synthetic Communications (1988), 18(10), 1029-33  
CODEN: SYNCAV; ISSN: 0039-7911  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 110:191879  
AB Organoborane-catalyzed hydroalumination of olefins with  
dichloroaluminum hydride and subsequent functionalization of the resulting  
organoaluminum with MeOCHClCO<sub>2</sub>Me afforded the corresponding  
 $\alpha$ -methoxy esters in good yield. Thus, 1-dodecene gave 70%  
n-C<sub>12</sub>H<sub>25</sub>CH(OMe)CO<sub>2</sub>Me.  
OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
(4 CITINGS)

L1 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 1984:570672 CAPLUS  
DOCUMENT NUMBER: 101:170672  
ORIGINAL REFERENCE NO.: 101:25803a,25806a  
TITLE: Asymmetric reduction of ketones with  
B-(cis-10-pinanyl)-9-borabicyclo[3.3.1]nonane.  
Observation of a change in enantioselection between  
similar organoborane and  
organoaluminum reagents  
AUTHOR(S): Midland, M. Mark; McLoughlin, Jim I.  
CORPORATE SOURCE: Dep. Chem., Univ. California, Riverside, CA, 92521,  
USA  
SOURCE: Journal of Organic Chemistry (1984), 49(21), 4101-2  
CODEN: JOCEAH; ISSN: 0022-3263  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Prochiral ketones of intermediate steric bulk are reduced in moderate to  
good enantiomeric excess with B-(10-pinanyl)-9-borabicyclo[3.3.1]nonane  
(cis-myrtanylborane). Selectivities and rates of reduction are increased at  
elevated pressures (up to 5000 atm). Studies with models suggest reduction  
occurs via competing cyclic transition states. Enantiomeric purities and  
absolute configurations of the product alcs. are compared with a closely  
related Al reagent. The B and Al reagents lead to alcs. of the opposite  
absolute configuration.  
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

L1 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 1984:438995 CAPLUS  
DOCUMENT NUMBER: 101:38995  
ORIGINAL REFERENCE NO.: 101:6111a,6114a  
TITLE: Acetylene high polymers  
PATENT ASSIGNEE(S): Showa Denko K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59006206	A	19840113	JP 1982-115592	19820705

PRIORITY APPLN. INFO.: JP 1982-115592 19820705

AB Acetylene high polymers are prepared in the presence of a highly active catalyst system comprising [A] a solid catalyst component containing Mg and  $\geq 1$  atom selected from Ti, V, or Zr and [B] an organic Al compound or organoborane. Thus, 50 g  $\text{MgCl}_2$  and 10 g vanadyl butyrate [31406-56-1] were combined to give the solid catalyst component (I). Then, 0.9 kg/cm<sup>2</sup> acetylene was polymerized in the presence of 200 mL PhMe, 1 g I and 1 mL  $\text{Et}_3\text{Al}$  [97-93-8] to give 3 g powdery polyacetylene (II) [25067-58-7]. The catalyst activity was 300 g II/g V.

L1 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1979:167703 CAPLUS

DOCUMENT NUMBER: 90:167703

ORIGINAL REFERENCE NO.: 90:26623a,26626a

TITLE: Part I. Stereochemistry and mechanism of the hydroboration of olefins and of the subsequent protonolysis of organoboranes; Part II. A new oxidation procedure for organoaluminum compounds

AUTHOR(S): Newton, Ray Jackson, Jr.

CORPORATE SOURCE: Univ. Tennessee, Knoxville, TN, USA

SOURCE: (1978) 93 pp. Avail.: Univ. Microfilms Int., Order No. 7903454

From: Diss. Abstr. Int. B 1979, 39(8), 3843

DOCUMENT TYPE: Dissertation

LANGUAGE: English

AB Unavailable

L1 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1971:100139 CAPLUS

DOCUMENT NUMBER: 74:100139

ORIGINAL REFERENCE NO.: 74:16309a,16312a

TITLE: Reaction of isonitriles with boranes

AUTHOR(S): Casanova, Joseph, Jr.

CORPORATE SOURCE: Dep. Chem., California State Coll., Los Angeles, CA, USA

SOURCE: Isonitrile Chem. (1971), 109-31. Editor(s): Ugi, Ivar. Academic: New York, N. Y.

CODEN: 23CIAJ

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

AB Isonitrile-organoborane reactions, isonitrile-organooaluminum and cyanide-organooaluminum reactions, cyanide-organoborane reactions, and the reactions of CO and other Lewis bases with organoboranes were reviewed with 71 refs.

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L1 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1970:415492 CAPLUS

DOCUMENT NUMBER: 73:15492

ORIGINAL REFERENCE NO.: 73:2591a,2594a

TITLE: Alternating copolymers

INVENTOR(S): Hirooka, Masaaki; Kimura, Fumiyuki; Yasui, Seimei; Mashita, Kentaro

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd.

SOURCE: Ger. Offen., 39 pp.



CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1949370	B2	19790405	DE 1969-1949370	19690930
DE 1949370	C3	19791122		
JP 48029393	B	19730910	JP 1968-70976	19680930
US 3700648	A	19721024	US 1969-858153	19690915
BE 739528	A	19700302	BE 1969-739528	19690929
NL 6914711	A	19700401	NL 1969-14711	19690929
NL 158506	B	19781115		
FR 2019187	A5	19700626	FR 1969-33097	19690929
GB 1280030	A	19720705	GB 1969-1280030	19690930

PRIORITY APPLN. INFO.: JP 1968-70976 A 19680930

AB Alternating copolymers are prepared from acrylic compds., such as amides or nitriles, and  $\alpha$ -olefins, other olefins, nonconjugated polyenes, acetylenic compds., or nonconjugated unsatd. compds. containing carbonyl or thiocarbonyl groups in the presence of catalysts prepared in the presence of  $\geq 1$  acrylic compound and containing organoaluminum or organoborane halides or their complexes, and a halo, alkoxy,  $\beta$ -diketo, or acyloxy compound of a Group IVA, VA, VIA, or VIII transition metal. Typical copolymers were prepared from styrene and Me acrylate, Me methacrylate, or acrylonitrile in the presence of Et<sub>3</sub>Al<sub>2</sub>Cl<sub>3</sub> and VOCl<sub>3</sub>. The alternating copolymers are obtained only when the catalyst components are mixed in the presence of the acrylic compound. Small amts. of organic peroxides, such as Bz<sub>2</sub>O<sub>2</sub>, may also be added to promote the polymerization.

These catalysts give good yields of the desired alternating copolymers.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
 (4 CITINGS)

L1 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1962:442965 CAPLUS

DOCUMENT NUMBER: 57:42965

ORIGINAL REFERENCE NO.: 57:8615f-i

TITLE: Organoboranes

INVENTOR(S): Ashby, Eugene C.

PATENT ASSIGNEE(S): Ethyl Corp.

SOURCE: 3 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3023248		19620227	US 1959-804078	19590406
DE 1137015			DE	
GB 899158			GB	

PRIORITY APPLN. INFO.: US 19590406

AB Organoboranes are prepared from organooxyboroxine (ROBO)<sub>3</sub> and an organoaluminum compound at 20-50° in a reactor equipped with internal agitation and a means for external cooling. Method (1) (MeOBO)<sub>3</sub> 34.8 is slowly added to Et<sub>3</sub>Al 68.4 parts with air cooling and the mixture distilled to give 70% Et<sub>3</sub>B. Method (2). Et<sub>3</sub>Al 342 dissolved in mineral oil 100 (ether or amine solvents work equally well) is added to (MeOBO)<sub>3</sub> 173.5

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parts over 2 hrs. with dry ice cooling. Method (3). (MeOBO)3 35 is added to ethylaluminum sesquihalide 160 parts with air cooling. Trioctylborane is produced by method (1) from (EtOBO)3 216 and trioctyl aluminum 1098 parts at 50°, and trieicosylborane from (PhOBO)3 and 10% excess trieicosyl aluminum at 100°. By method (2), PH3Al 1032 and (MeOBO)3 209 parts give Ph3B. If the organoborane is distilled from the mixture, the residue hydrolyzed in aqueous HCl, filtered, and distilled, the alc. is recovered. When the latter reacts with borax, is filtered, boric oxide added to the alkyl borate, and heated to 180° 5 hrs., the trialkoxy boroxine is formed.

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(FILE 'HOME' ENTERED AT 16:49:59 ON 03 MAR 2010)

FILE 'CAPLUS' ENTERED AT 16:50:14 ON 03 MAR 2010

L1 13 S ORGANOBORANE AND ORGANOALUMINUM

=> log y

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

XXXXXXXXXXXXXXXXXXXXXXXXXXXX
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION

CA SUBSCRIBER PRICE

-10.20	-10.20
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STN INTERNATIONAL LOGOFF AT 16:51:01 ON 03 MAR 2010